UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
KOENIG, ANDREW Y

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>11 May 2005</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>26-28,33-43 and 49-74</u> is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>26-28,33-43 and 49-74</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☐ All   b)☐ Some * c)☐ None of:
1.☐ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 26-28, 33-43, and 49-74 have been

considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2.   Claims 26, 36, 40, 66, and 67 are objected to because of the following

informalities:

Claim 26 recites the limitation "said timing information" in line 2. There is

insufficient antecedent basis for this limitation in the claim. For the rest of this Office

Action, "said timing information" will be treated as "said timing data."

Claim 36 recites the limitation "said mask data" in line 2. There is insufficient

antecedent basis for this limitation in the claim. For the rest of this Office Action, "said

mask data" will be treated as "mask data."

Claim 40 recites the limitation "said mask data" in line 2. There is insufficient

antecedent basis for this limitation in the claim. For the rest of this Office Action, "said

mask data" will be treated as "mask data."

Claim 66 recites the limitation "said annotation data" in line 2. There is

insufficient antecedent basis for this limitation in the claim. For the rest of this Office

Action, "said annotation data" will be treated as "annotation data."

Claim 67 recites the limitation "said image overlay data" in line 2. There is

insufficient antecedent basis for this limitation in the claim. For the rest of this Office

Action, "said image overlay data" will be treated as "said data for overlaying a graphics

image."

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 26-28, 33-43, 49-56, and 58-63 are rejected under 35 U.S.C. 103(a) as

being unpatentable over U.S. Patent 6,615,408 to Kaiser et al. (Kaiser) in view of U.S.

Patent 6,496,981 to Wistendahl et al. (Wistendahl).

Regarding claim 28, Kaiser teaches a reproduction apparatus (fig. 1, label 1300)

in communication with a broadcast channel (col. 4, ll. 59-67; col. 5, ll. 22-31), a display

(fig. 1, label 1200) (claimed display device). Kaiser teaches a receiver decoding a

digital signal to recover a video signal (such as high definition television formats, see

col. 5, ll. 30) and trigger/placement zones (claimed annotation data) (fig. 2). Kaiser

teaches a placement zone comprising the one or more frames comprising an image

referencing a product data (col. 6, ll. 19-23); Kaiser receives the overlay of a graphic on

a video frame from accessing a data network 1400 (col. 8, ll. 14-23), Kaiser is silent on

the graphics data being included in the broadcast signal.

In analogous art, Wistendahl teaches inserting the N data (for mapping the locations of the hot spots – see col. 6, ll. 27-31, col. 6, ll. 42-59) along with the media content (col. 3, ll. 32-45, col. 7, ll. 28-52), which equates to the graphics data being included in the broadcast signal.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kaiser by having graphics data being included in the broadcast signal as taught by Wistendahl in order to efficiently enable the user to access additional services along with receiving media.

Kaiser teaches placement zones, which can be viewed over one or more frames (col. 6, ll. 19-23), fails to explicitly disclose drawing the graphics images in response to a viewer request and the drawing of the graphic image being synchronized to the underlying frame based on timing data.

In analogous art, Wistendahl teaches drawing halos H (see fig. 7a) by highlighting the hotspots (col. 15, ll. 1-6, col. 15, ll. 54-56), which equates to in response to a viewer request, wherein the hot spots are viewed over one or more frames and the graphic image is synchronized to the underlying frame based on timing data of the graphic image, in that the hot spot is for a given frame and each frame has a unique time position in the sequence (col. 5, ll. 67-3, col. 6, ll. 42-46).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kaiser by drawing the graphics images in response to a viewer request and the drawing of the graphic image being synchronized to the underlying frame based on timing data as taught by Wistendahl in order to

provide for synchronization of the overlays over a plurality of frames, thereby increasing

the effectiveness of the hotspot by properly following the image.

Regarding claim 26, the combination of Kaiser and Wistendahl teaches timing

information comprising one of a timestamp, timecode, frame numbering, or global time

of day (Wistendahl: col. 5-6, ll. 66-3, col. 6, ll. 27-31, col. 6, ll. 60-63).

Regarding claim 27, Kaiser clearly synchronizes the placement zones and the

video in response to timing information in order to place the placement zones over the

proper location, such as a car as shown in figures 6A-6D, see also Wistendahl: col. 5-6,

ll. 66-3, col. 6, ll. 27-31, col. 6, ll. 60-63.

Regarding claim 33, Kaiser teaches product purchase actions (col. 12, ll. 29-54),

which reads on information regarding goods and services.

Regarding claim 34, the combination of Kaiser and Wistendahl teaches

annotation data comprising a movie trivia information, which reads on a non-commercial

information (Wistendahl: col. 9, ll. 28-39)

Regarding claim 35 and 36, the combination of Kaiser and Wistendahl teaches a

placement zone which references a product being displayed, wherein the placement

zone is a location of an object (Wistendahl: col. 5-6, ll. 66-3, col. 6, ll. 27-31, col. 6, ll. 60-63).

Regarding claims 37-39, Kaiser teaches placement zones for various frames (fig. 2, col. 6, ll. 9-17), wherein the placement can track an image at the upper left corner (col. 10, ll. 34-38). Whereas Kaiser is silent on a location reference at the centroid pixel, Official Notice is taken that a center position is well known in the art, such as tracking an object by the center position. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kaiser by using a center position (as a reference point) in order to properly track an image thereby increasing the effectiveness of the placement zone.

Regarding claims 40-42, Kaiser teaches location and shape information such as the shape and location of the car (col. 10, ll. 34-38), see figures 6A-6D, wherein the visual highlight (fig. 6B, label 6500) is a graphical overlay and has an outline of the car.

Regarding claim 43, Kaiser is silent on a mathematical representation of set of pixels. Official Notice is taken that mathematical representation of pixels are well known in the art, such as vectors used in video encoding in order to reduce the bandwidth by reducing duplicity of the pixels. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kaiser by using a

mathematical representation in order to save bandwidth and process the information at

the client side.

Regarding claim 49, Kaiser teaches a back channel (fig. 1, label 1400-data

network).

Regarding claim 50, Kaiser teaches product selection or information (col. 3, ll. 3-

5), collecting user information (col. 14, ll. 3-21), and accepting information regarding a

commercial transaction and completing the transaction (fig. 9).

Regarding claim 51, Kaiser performs a 'secure transaction verification' procedure

(fig. 9, label 9300), which in the broadest reasonable sense has some information

regarding a viewer identifier in order to identify the viewer.

Regarding claim 52, Kaiser teaches plural annotations, which as discussed in

claim 28 have equal timing. Further, Kaiser teaches that the plurality of annotations

would be different in that the system will need to differentiate among plural annotations

in that they will have different masks and provide different information.

Regarding claim 53, Kaiser teaches a reproducing apparatus (fig. 1, label 1300),

which reads on a receiver that receives video (col. 5, ll. 10-31) and action resource data

(claimed annotation data) (col. 5-6, ll. 55-8), wherein the action resource data includes

overlay information as shown in figure 6B (col. 10, II. 9-41), selectable actions (claimed

object data appearing on a portion of the video) (fig. 6A-6D), and timing information (fig.

2, col. 6, II. 9-64). Whereas Kaiser does not explicitly teach a data store storing at least

a portion of the received annotation data, the system inherently stores a portion of the

data in buffers, memory, or processor registers in order to process the received

information.

Kaiser teaches placement zones, which can be viewed over one or more frames

(col. 6, II. 19-23), fails to explicitly disclose drawing the graphics images in response to a

viewer request and the drawing of the graphic image being synchronized to the

underlying frame based on timing data.

In analogous art, Wistendahl teaches drawing halos H (see fig. 7a) by

highlighting the hotspots (col. 15, II. 1-6, col. 15, II. 54-56), wherein the hot spots are

viewed over one or more frames and the graphic image is synchronized to the

underlying frame based on timing data of the graphic image, in that the hot spot is for a

given frame and each frame has a unique time position in the sequence (col. 5, II. 67-3,

col. 6, II. 42-46).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Kaiser by drawing the graphics images in

response to a viewer request and the drawing of the graphic image being synchronized

to the underlying frame based on timing data as taught by Wistendahl in order to

provide for synchronization of the overlays over a plurality of frames, thereby increasing

the effectiveness of the hotspot by properly following the image.

Regarding claim 54, as shown in figure 6B, Kaiser visually identifies the object.

Regarding claim 55, as shown in figure 6B, Kaiser teaches the location of the object.

Regarding claim 56, as shown in figure 6B, Kaiser teaches shape information.

Regarding claim 58, Kaiser teaches in-band techniques for receiving annotation data (col. 5, ll. 45-54, col. 6-7, ll. 65-4).

Regarding claim 59, Kaiser teaches annotation data over a broadcast transmission with the video stream (col. 5, ll. 45-54).

Regarding claim 60, Kaiser teaches sending the annotation data over a broadcast transmission with the video stream (col. 5, ll. 45-54), which clearly would be received prior to the video stream in order to synchronize the display of the annotation data.

Regarding claim 61, Kaiser teaches sending the data over a separate transmission medium from the video (col. 5, ll. 45-54), which equates to an out of band signal.

Regarding claim 62, Kaiser teaches sending the data over a data communication network (col. 5, II. 45-54).

Regarding claim 63, Kaiser teaches permitting the user to engage in purchasing an item (col. 12, II. 29-65).

5.   Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,615,408 to Kaiser et al. and U.S. Patent 6,496,981 to Wistendahl et al. (Wistendahl) in view of U.S. Patent 6,415,438 to Blackketter et al.

Regarding claim 57, Kaiser teaches displaying the annotations, but both Kaiser and Wistendahl are silent on second timing information for removing the annotation data from the data store. Blackketter teaches expiring triggers (col. 3, II. 13-22, col. 10, II. 24-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kaiser and Wistendahl by indicating an expiration time in order to ignore invalid triggers (Blackketter: col. 10, II. 24-35).

6.   Claim 64-67, 71, 72, and 74 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,496,981 to Wistendahl et al. (Wistendahl) in view of U.S. Patent Application Publication 2001/0023436 to Srinivasan et al. (Srinivasan).

Wistendahl teaches a video source (fig. 1,2) and a converter for converting the

media into a digital format of frames (col. 5-6, ll. 60-2). Wistendahl teaches, as shown

in figure 2, an N data defining hot spots (col. 6, ll. 60-63), which is derived from an

annotation source providing graphics data for overlaying a graphics image on a video

frame (col. 6, ll. 27-31, col. 6, ll. 42-46), wherein the hot spots are associated with a

frame of the video, which reads on a data packet stream generator. Wistendahl

teaches a server for transmitting the frame data (broadcast signal) and the N data

(annotation data for the data packet stream generator) (col. 7, ll. 42-45). Wistendahl

teaches a converter (fig. 1, 2, col. 5-6, ll. 60-2) providing timing information for the

frames to the data packet stream generator in order to enable the data packet stream

generator to associated the timing information to the graphical hot spots (col. 6, ll. 27-

31, col. 6, ll. 42-59, col. 6, ll. 60-64). After formatting the data, the server transmits the

data to the receiver (col. 7, ll. 42-45). At the receiver, Wistendahl teaches drawing

halos H (see fig. 7a) by highlighting the hotspots (col. 15, ll. 1-6, col. 15, ll. 54-56),

wherein the hot spots are viewed over one or more frames and the graphic image is

synchronized to the underlying frame based on timing data of the graphic image, in that

the hot spot is for a given frame and each frame has a unique time position in the

sequence (col. 5, ll. 67-3, col. 6, ll. 42-46).

Wistendahl teaches a video source (fig. 1,2) and a converter for converting the

media into a digital format of frames (col. 5-6, ll. 60-2) and Wistendahl recognizes that

the system can be used with MPEG-2 video, such as used on DVDs (col. 16, ll. 42-65),

but Wistendahl is silent on the video encoder producing a transport stream. Official

Notice is taken that the use of an encoding video into a transport stream is well known

in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Wistendahl by encoding video into a transport

stream in order to compress a digital signal by reducing the redundant information

thereby reducing the bandwidth of a signal.

Wistendahl teaches a separate (logical or physical) storage location for the frame

data and the N data (col. 6, ll. 39-59), but is silent on a data packet stream generator

producing encoded data packets. Further, Wistendahl teaches a server for transmitting

the frame data (broadcast signal) and the N data (annotation data for the data packet

stream generator) (col. 7, ll. 42-45), but is silent on a multiplexer.

In analogous art, Srinivasan teaches a data packet stream generator producing

encoded data packets creates metadata from the frame number or numbers (PTS),

where the PTS is the presentation time stamp of a digital signal (pg. 19, para. 0222),

wherein the PTS is associated with the metadata (pg. 21, para. 0233), which equates to

encoding data packets. Additionally, Srinivasan teaches multiplexing the metadata with

the video content (pg. 20, para. 0224). Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify Wistendahl by

producing encoded data packets using a data packet stream generator and multiplexing

the video content and metadata as taught by Srinivasan in order to provide a digital

synchronization means utilizing the existing structure of the digital signal and efficiently

providing both the metadata and video to the user.

Regarding claim 65, the combination of Wistendahl and Srinivasan teaches

timing information comprising one of a timestamp, timecode, frame numbering, or global

time of day (Wistendahl: col. 5-6, ll. 66-3, col. 6, ll. 27-31, col. 6, ll. 60-63).

Regarding claim 66 and 67, the combination of Wistendahl and Srinivasan

teaches a placement zone which references a product being displayed, wherein the

placement zone is a location of an object (Wistendahl: col. 5-6, ll. 66-3, col. 6, ll. 27-31,

col. 6, ll. 60-63).

Regarding claims 71-72, the combination of Wistendahl and Srinivasan has been

explained above. Wistendahl teaches location and shape information of an overlay

which can be highlighted (col. 6, ll. 27-31, col. 6, ll. 60-64, col. 15, ll. 4-7, col. 15, ll. 53-

56).

Regarding claim 74, Wistendahl and Srinivasan are silent on a mathematical

representation of set of pixels. Official Notice is taken that mathematical representation

of pixels are well known in the art, such as vectors used in video encoding in order to

reduce the bandwidth by reducing duplicity of the pixels. Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify

Wistendahl and Srinivasan by using a mathematical representation in order to save

bandwidth and process the information at the client side.

7.   Claims 68-70, and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent 6,496,981 to Wistendahl et al. (Wistendahl) and U.S. Patent

Application Publication 2001/0023436 to Srinivasan et al. (Srinivasan) in view of U.S.

Patent 6,615,408 to Kaiser et al.

Regarding claims 68 and 69, the combination of Wistendahl and Srinivasan has

been explained above. However, Wistendahl and Srinivasan are silent on a reference

that represents a fixed relation to pixels, wherein the pixel is the upper left most pixel. In

analogous art, Kaiser teaches placement zones for various frames (fig. 2, col. 6, II. 9-

17), wherein the placement can track an image at the upper left corner (col. 10, II. 34-

38), which equates to a reference that represents a fixed relation to pixels, wherein the

pixel is the upper left most pixel. Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify Wistendahl and

Srinivasan on a reference that represents a fixed relation to pixels, wherein the pixel is

the upper left most pixel as taught by Kaiser in order to properly track an image thereby

increasing the effectiveness of the placement zone.

Regarding claim 70, Wistendahl, Srinivasan, and Kaiser are silent on a location

reference at the centroid pixel, Official Notice is taken that a center position is well

known in the art, such as tracking an object by the center position. Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made

to modify Wistendahl, Srinivasan, and Kaiser by using a center position (as a reference

point) in order to properly track an image thereby increasing the effectiveness of the

placement zone.

Regarding claim 73, the combination of Wistendahl and Srinivasan teaches

location and shape information of an overlay which can be highlighted (Wistendahl: col.

6, ll. 27-31, col. 6, ll. 60-64, col. 15, ll. 4-7, col. 15, ll. 53-56), but is silent on the an

outline of the object. In analogous art, Kaiser teaches location and shape information

such as the shape and location of the car (col. 10, ll. 34-38), see figures 6A-6D, wherein

the visual highlight (fig. 6B, label 6500) is a graphical overlay and has an outline of the

car. Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to modify Wistendahl and Srinivasan by providing an outline of

the object as taught by Kaiser in order to clearly convey to the user which object is of

interest.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Andrew Y. Koenig whose telephone number is (571)

272-7296. The examiner can normally be reached on M-Th (7:30 - 6:30).
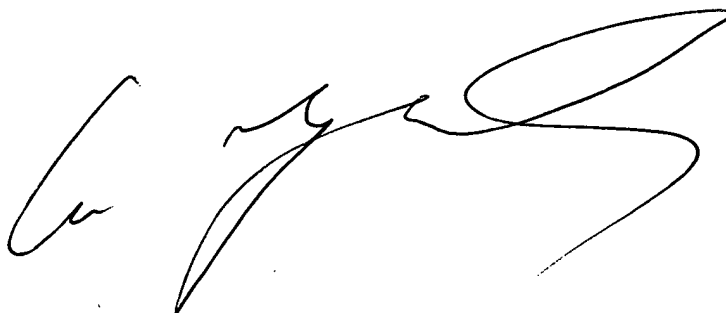
If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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